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ABSTRACT

Community colleges have always been strongly tied to their local communities, and arose out of an egalitarian approach to higher education. The Morrill Act of 1862 created the American land grant universities, with an emphasis on practical education in agriculture and technical fields. In addition, a number of private two-year "junior colleges" were established in the United States by the end of the century, and the first public junior college was founded in 1901 in Joliet, Illinois. This booklet details community college history and development from this time, paying special attention to geography and its influence on enrollment. Several U.S. maps, with accompanying text, are included, detailing community college enrollment in fall 1994, enrollment as a proportion of all public undergraduate enrollment, minority students as a proportion of enrollment in community colleges, community college tuition as a proportion of tuition at four-year public colleges, and full-time faculty salaries at community colleges as a proportion of salaries at public four-year colleges. A case study of the Virginia community college system is included to illustrate the development of state-wide systems. Contains 18 references. (EMH)

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Community Colleges in the United States: a Geographical Perspective

Alice C. Andrews and James W. Fonseca
George Mason University
1998

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Community Colleges in the United States: a Geographical Perspective

Association of American Geographers
1998

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Association of American Geographers
1710 Sixteenth St NW
Washington DC 20009-3198
voice 202-234-1450 fax 202-234-2744
internet gaia@aag.org
website http:\\www.aag.org

Community colleges are a uniquely North American institution, an important component of higher education that emerged first in the United States and later in Canada[1]. They are two year, open door colleges that welcome a broad diversity of students of all ages. The driving force behind them is the conviction that higher education should be open to all citizens, not just the elite. Community college systems vary greatly from state to state, and they play an important role in the education of minorities and the acculturation of recent immigrants.

As the name implies, community colleges are strongly tied to their local communities and try to serve their needs. They arose out of a different, more egalitarian, approach to higher education that first presented itself in the last century and was embodied in the Morrill Act of 1862. This legislation created the American land grant universities, with their emphasis on practical education in agriculture and technical fields. A number of private two-year "junior colleges" were established in the United States by the end of the century. The first public junior college was founded in 1901 in Joliet, Illinois, under the influence of President Harper of the University of Chicago, who strongly believed that college level courses could be offered outside the universities. Other public two-year colleges soon followed in California, which became the model for other states. Texas, Illinois, Mississippi, Missouri, Iowa, Kansas, and Michigan were also among the early states to establish public junior colleges (Vaughan, 1995).

A pivotal point in the development of community colleges came in 1920, when junior college leaders from 22 states met in a federally-sponsored conference in St. Louis and "declared the junior colleges' freedom from the university and opened the way for the evolution of the modern, comprehensive, socially progressive community college" (Pedersen, 1995, p.26). An association of junior colleges was later created, which after several name changes evolved into the American Association of Community Colleges.

[1]The focus of this article is community colleges in the United States. For Canadian community colleges, see the excellent summary by Dennison and Gallagher, 1986.

After World War II, the anti-elitist approach to higher education was reinforced by the passage of the Servicemen's Readjustment Act in 1944. This act, commonly known as the GI Bill of Rights, provided scholarships for millions of veterans to attend college. Then came the Truman Commission Report; it stated that 49 percent of the population had the mental ability to complete 14 years of schooling and promoted the establishment of a network of publicly supported two-year colleges, which were to be called community colleges. These developments enabled the phenomenal growth of community colleges in the 1960s described in the aptly titled book, *Breaking the Access Barriers* (Medsker and Tillery, 1971). Widely used as a baseline study for later analysis, it defined issues to be faced by the new community colleges, such as the education of minority students, community outreach, and the need for specially trained faculty.

At the end of the 1960s, the development of community colleges was quite uneven. They were heavily concentrated in a few "pacesetter states" (Medsker and Tillery, 1971). Seven states accounted for more than a third of all public two-year colleges and more than two-thirds of the enrollment in such institutions: California, New York, Illinois, Michigan, Florida, Texas, and Washington. Fourteen other states also had substantial numbers of community colleges by this time. The regional pattern that we see today had already been set (Andrews, 1974).

In the next twenty-five years, the number of community colleges in the United States increased steadily, and the nature of the community college also evolved to its present state as an integral part of American higher education. One recent study called the community college a kind of American thermometer, and said that "....the way we are as a learning society is best understood by the way we use community colleges" (Adelman, 1992, p. v). In the course of a lifetime, the same individual might complete the first two years of college there and move on to a university, come back later to upgrade job skills, and finally take enrichment courses as a senior citizen. Much progress has been made in the articulation of agreements between community colleges and four-year institutions, but much work remains to be done. In fact, one geographer has

recently referred to "...the collapse of the transfer function..." (Hickey, 1996, p. 28). Still, the community college is the most flexible of educational institutions, keeping in touch with local needs and having the ability to adjust to rapid change (Rouche, 1995).

Enrollment

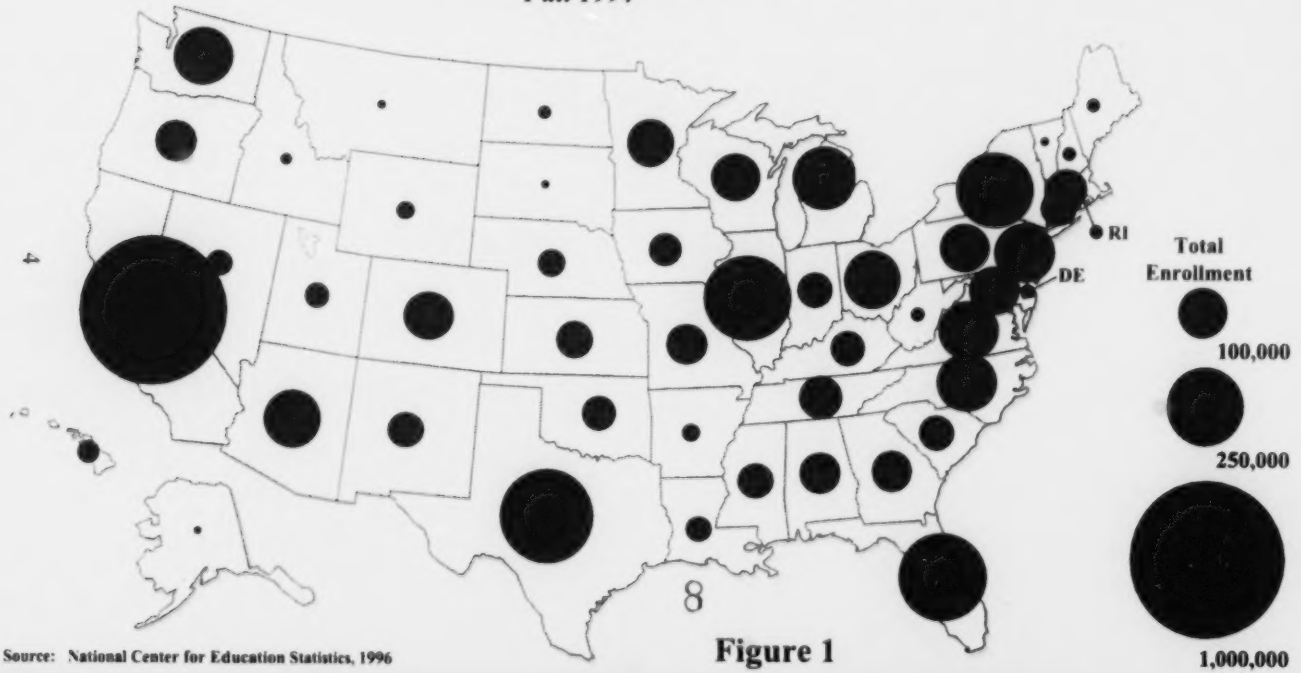
In 1995 there were 1,036 public community colleges in the United States, according to the National Center for Education Statistics. Numbers vary greatly by state, with 107 in California and only one each in Alaska, Rhode Island, South Dakota and Vermont. Other states with large numbers of community colleges, in addition to California, are Texas (67), North Carolina (58), Georgia (54), Minnesota (51), Illinois (49) and New York (47). There are now many more community colleges than public four-year schools; there were only 608 of the latter in 1995-96.

The growth of community college enrollment has been no less than phenomenal. By Fall 1994, more than 5,308,000 students were enrolled in American community colleges, a full-time equivalent (FTE) student enrollment of 3,035,000, and a figure close to the 5,825,000 enrollment in public four-year colleges (about 4,750,000 FTE). Community college enrollment grew 42 percent since 1976, compared to 19 percent for four-year public colleges. One reason for such rapid growth is that community colleges also accommodate the part-time student -- the fastest-growing segment of the American college population. While full-time students still make up 76 percent of the four-year college student body, the community colleges are dominated by part-timers: 64 percent part time, 36 percent full-time. Some community colleges are now among the largest campuses in the United States. Miami-Dade, Houston, and Northern Virginia Community Colleges rank 4th, 5th and 13th in size, respectively, among American campuses in 1994.

In the distribution of enrollment by state, the numbers of community college students are closely related to population size, as expected (Figure 1). Eight of the states with the largest numbers of two-year college students are among the ten largest states in size of population. California leads with 1,100,000 students, followed by Texas (419,000), Illinois (351,000) and Florida (327,000).

Community College Enrollment

Fall 1994



Source: National Center for Education Statistics, 1996

Figure 1

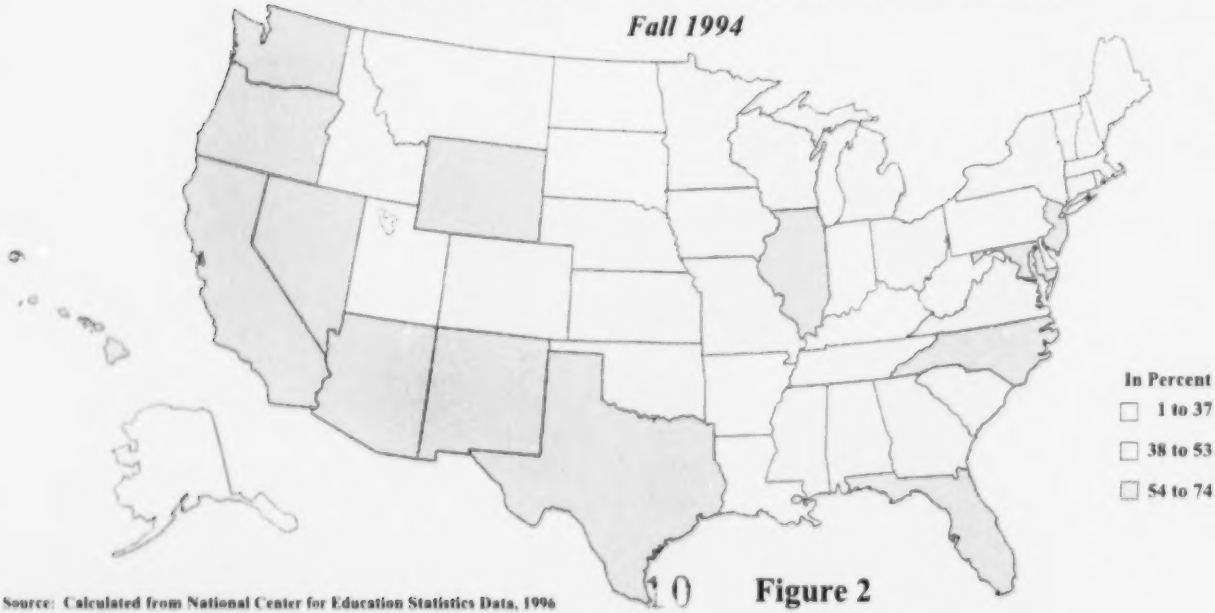
Conversely, the states with the smallest community college enrollments (South Dakota, Alaska, Montana, Vermont) are among the smallest states in population.

Another way of examining the importance of community colleges by state, shown in Figure 2, is based on the proportion of undergraduate enrollment in community colleges. The great regional variation is a phenomenon the authors have treated in greater detail elsewhere (Fonseca and Andrews, 1989). Western and southwestern states have a large proportion of their enrollment in community colleges (up to 74 percent in the case of California; two thirds or more in Illinois, Washington, Arizona and Wyoming). After the West, the South stands out with several states in the highest category (notably Florida, 67%; Maryland, 57%; Texas, 56% and North Carolina, 54%). The Midwest, except for Illinois with 71 percent, is generally a region of intermediate values. Three areas have the lowest values: the Northeast (especially northern New England), several states of the northern Great Plains and northern Rockies, and the two states of Arkansas and Louisiana. South Dakota and Alaska (two of the states with only one community college) have two percent or less enrolled in community colleges. Generally, community colleges are stronger in the more recently and rapidly settled parts of the nation such as Florida, the West and Southwest.

One other explanatory variable to this map should be noted. Private two-year colleges are not classified here as community colleges. However, they are quite important in some states, even though they represent only about four percent of the nation's two-year college enrollment. Pennsylvania, New York, Ohio and Massachusetts account for almost half of the 221,000 students who attend private two-year schools. Pennsylvania has the largest number in private colleges -- more than 48,000 in its 51 private two-year schools, about 22 percent of the enrollment in that state's 20 public two-year colleges. In a number of states with large Indian reservations, another kind of college exists, and is in many ways comparable to the community colleges. This is the Native American-controlled "tribal college." These colleges are found in several states but are most numerous in Montana and the Dakotas.

Community College Enrollment ast a Proportion of All Public Undergraduate Enrollment

Fall 1994



Source: Calculated from National Center for Education Statistics Data, 1996

Figure 2

Minorities in Community Colleges

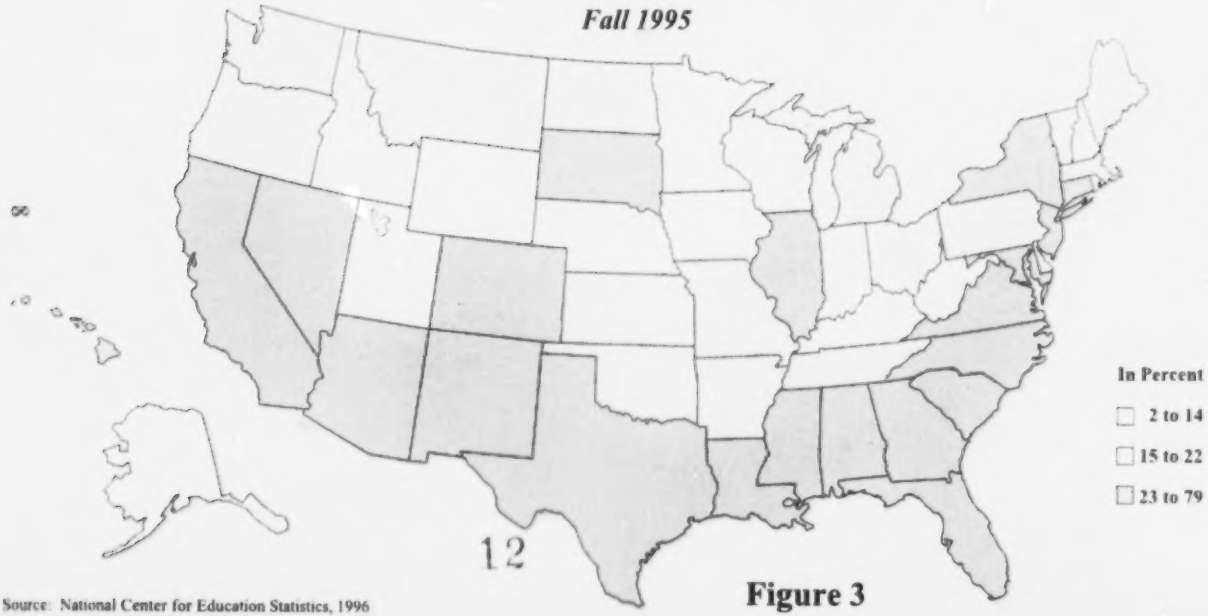
The combination of the open door admissions policy, low tuition, and easy geographic access makes the community colleges particularly attractive to many minority students who might otherwise not contemplate college. The percentage of minority students in the total enrollment of community colleges is thus considerably higher than in public four-year institutions; in fact, there are more minorities in community colleges than in public four-year schools. Fifty-five percent of minority students in public higher education attend community colleges (Figure 3). The most dramatic pattern on the map is the southern rim of states in which minority enrollment amounts to 23 percent or more of total enrollment. The southern rim includes the states of the Deep South, with large proportions of African Americans, and the Southwestern states, where the proportion of Hispanics is high. The presence of another minority, Native Americans, is apparent inside the southern rim, especially in Arizona, New Mexico and Oklahoma, and also in the north in the Dakotas and Montana. Also in the high category are some states where the proportion of minority population in metropolitan areas is quite large -- New York, New Jersey, Illinois, and Maryland. California is both heavily metropolitan and heavily minority.

In California, the Latino population is growing at over three times the rate of non-Latino whites, and the Asian population is increasing twice as fast as the white population. "These potential students will be looking to community colleges to meet their educational needs" (Piland, 1995, p.25). In California, however, the current mood toward immigration is complicating the role of community colleges (Reid, 1995).

Hawaii, the state with the largest proportion of "minority" population, also has the highest proportion of minorities in community colleges, 79 percent. In Hawaii, the Asian/Pacific Islander group alone makes up 73 percent of enrollment. Asian Americans have become noted for their exceptional academic performance and have been called the "model minority" (Yang et. al. 1994, p. 19). Like Hispanics, this is a catchall category, with great variation among the different Asian national groups.

Minority Students as a Proportion of Enrollment in Community Colleges

Fall 1995



Source: National Center for Education Statistics, 1996

Figure 3

All minorities increased their enrollment in community colleges in the period 1984 to 1994. The percentage increase was 34 percent for African Americans, 45 percent for Native Americans, 87 percent for Asians, and 102 percent for Hispanics. In the same period, the white enrollment increased by only 10 percent. However, minorities are not very well represented on the faculties of community colleges.

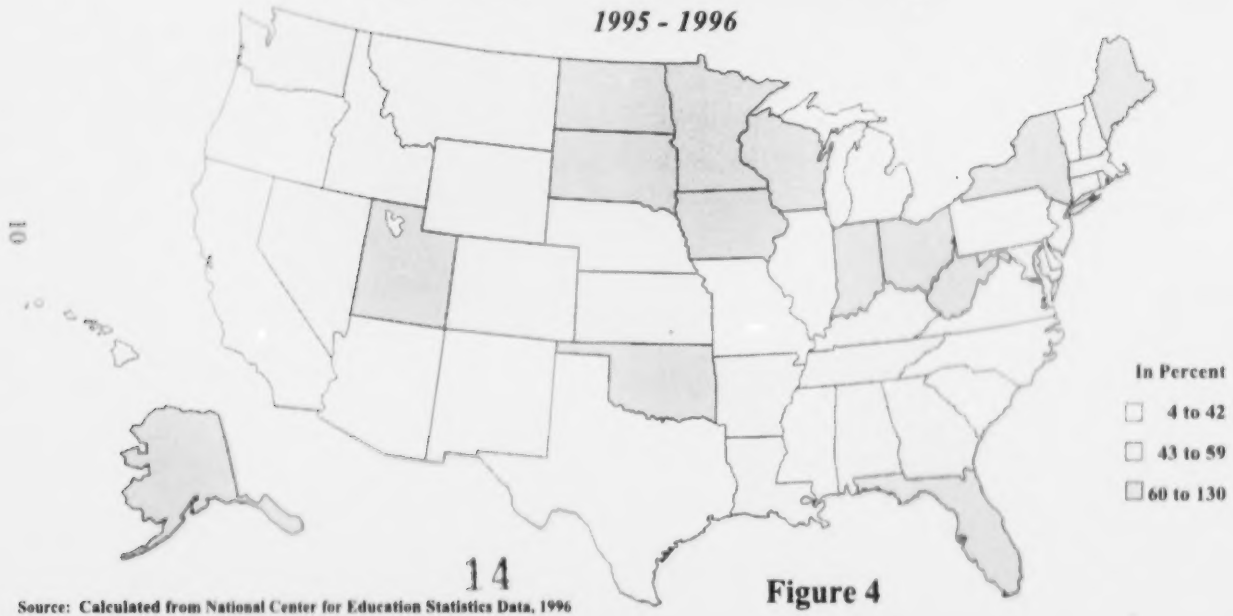
Financial Issues and Access

A number of important factors help account for the success of community colleges. The first is cost. Community colleges are less expensive to build, maintain and operate. Generally community college campuses are spartan and functional. Few have student residences or athletic teams and stadia; a cafeteria and bookstore housed in a portion of an academic building often substitute for the multi-storied student union buildings that are common on four-year and university campuses.

With reduced infrastructure and personnel costs, community colleges charge substantially less tuition. On average in 1995-96, community college in-state tuition was 44 percent of that at four-year public institutions ($1,245 compared to $2,848). These data are mapped by state in Figure 4. California is of particular note because its community college tuition is only 14 percent of that of its four-year colleges. At the other extreme from California's bargain tuition is South Dakota (130% of four-year tuition), an anomaly reflecting that state's single community college. The pattern again shows regional distinctions. Not surprisingly, those states with relatively low community college tuition are also those with large proportions of students attending community colleges. Note the correspondence between Figure 4 and Figure 2 in the West and Southwest and in specific states such as North Carolina, Illinois and Hawaii. The converse, relatively high tuition compared to four-year colleges with relatively small proportions of students enrolled in community colleges, is seen in the Dakotas, Alaska, Utah, Indiana, Maine and West Virginia. Clearly, Figures 2 and 4 must be studied together to explain enrollment patterns.

Community College Tuition as a Proportion of Tuition at Four-Year Public Colleges

1995 - 1996



Source: Calculated from National Center for Education Statistics Data, 1996

Figure 4

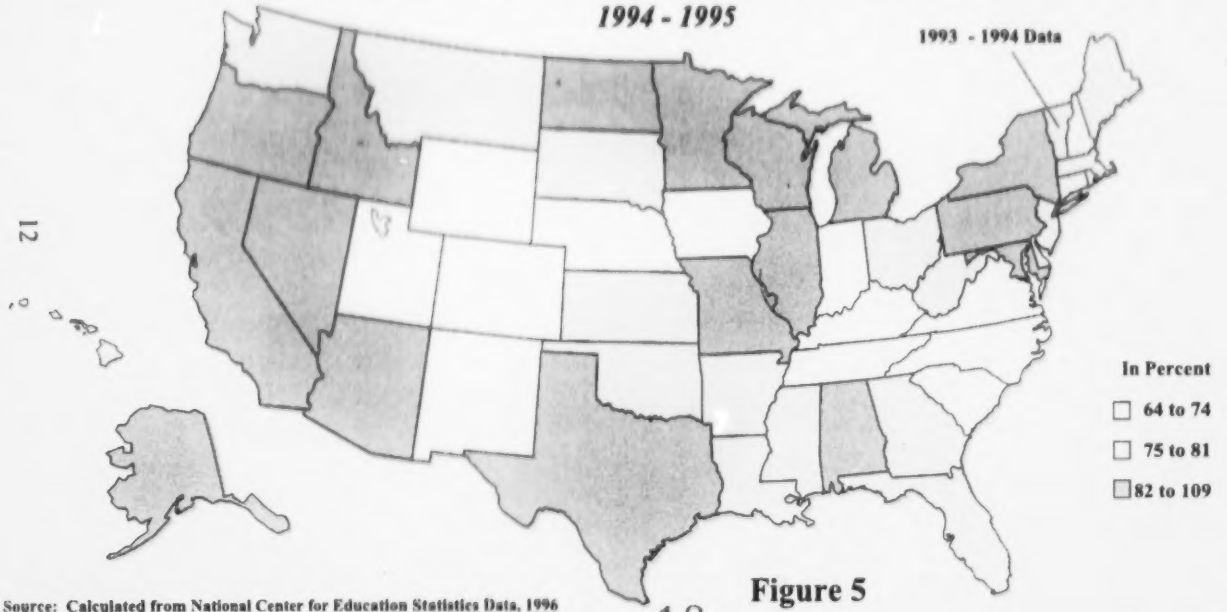
Community college faculty usually are paid substantially less than their four-year counterparts despite heavier teaching loads (Figure 5). In 1994-95, community college faculty earned on average a little over $42,000 compared to the almost $50,000 earned by their four-year colleagues, an 18 percent difference. They do not, however, encounter the same expectations regarding scholarship and research as their counterparts at universities. In addition, larger proportions of community college faculty are adjunct faculty. Figure 5 shows that some western states, much of the Midwest, and much of the Middle Atlantic region pay their community college faculty at least 82 percent of the amount paid to four-year faculty. Alaska, an exception because of its single community college, actually pays community college faculty 9 percent more than four-year faculty. The salary differential is greatest in a bloc of states made up of Virginia, the Carolinas, Kentucky, Tennessee and Indiana and in several interior states.

In addition to low tuition, a second factor fostering the growth of enrollment at community colleges is geographic access. Many community college systems were designed to bring higher education within reach of commuter students who work part-time. Unlike some older four year colleges that are eccentric to current population concentrations or were placed deliberately in idyllic but isolated rural settings, community colleges are scattered throughout the states, often at key interstate highway locations that could easily support shopping malls and other retail concentrations.

Access has been social as well as geographic. Many community college systems offer open enrollment, admitting all students who have a high school degree or equivalent. Community colleges also offer a variety of clerical, technical and professional specialties not commonly found at universities. It is not unusual for community colleges to offer training programs for dental hygiene assistants, secretaries, automotive mechanics, carpenters, air conditioner and electrical appliance repair, and so on. Many states tout their community colleges' willingness to develop training programs as an attraction to new industries. In fact, the role of the community colleges in such economic development has been broadening to include outreach to the global economy (Friedstein, 1995).

Full-Time Faculty Salaries at Community Colleges as a Proportion of Salaries at Public Four-Year Colleges

1994 - 1995



Source: Calculated from National Center for Education Statistics Data, 1996

Figure 5

Associate Degrees

Associate degrees may be awarded after two years of full-time study, although not all students who attend community colleges have such a degree as a goal. Also, not all associate degrees are awarded by community colleges. Some four-year schools in the New York system award them, as do some branch campuses of public universities in other states. In 1993-94, more than a half-million associate degrees were awarded (about 221,000 to men and 321,000 to women). In terms of ethnicity, some 46,000 of these degrees were earned by African Americans, 32,000 by Hispanics, 19,000 by Asians, and 5,000 by American Indians. All together, these minority students earned only about one-fifth of the associate degrees awarded in that year. In terms of fields of study, the top field for both men and women earning associate degrees was liberal/ general studies. For men, this was followed by engineering-related technology, business management, and protective services; for women, by health services and business management.

The Virginia Community College System: A Case Study

Virginia's community colleges offer a good illustration of the development of state-wide systems, for Virginia is relatively typical of such systems. Virginia has an intermediate proportion of students (52%) enrolled in community colleges (Figure 2). Its proportion of minority enrollment (24%) is close to the national average. Community college tuition, compared to that at four-year schools, is in the lowest category in Figure 4, but 37 percent is not exceptionally low. Similarly, the faculty salaries (Figure 5), while again in the lowest category, is 74 percent, right at the cutoff for the intermediate values. Virginia's system of community colleges was established in 1966 at about the same time that many other states were founding community colleges. The number of colleges (24) is about average for its population. Finally, the Virginia system, like others, is of particular geographical interest in its regional structure because of its mandate to provide education within commuting distance of all state residents.

George Vaughan (1987) notes that talk of a system of state technical/vocational education began in the 1940's while Virginia, like many other southern states, was undergoing a drastic transformation of its economy from an agricultural base to an industrial one. Virginia, home of William and Mary, the second-oldest higher education institution in the United States, and home of Thomas Jefferson, founder of the University of Virginia and a key proponent of public higher education, had fallen behind in educational opportunity for its citizens. As late as 1964, only 25 percent of Virginia high school graduates were going to college, compared to 44 percent nationally and 32 percent in the South. This percentage had to increase if the state were to provide skilled workers for new and expanding industries and continue to attract out-of-state industries. Virginia's college-age population was projected to increase by 75 percent between 1960 and 1980, due to the baby boom. It was clear that four-year college would not be for everyone; indeed the four-year schools were initially resistant to political pressures to increase enrollments, preferring instead to raise admission standards. Also, many capable potential students would not be able to afford four-year college tuition.

Eventually the idea of a system of community colleges emerged. Comprehensive community colleges would serve multiple needs. The colleges would offer academic transfer programs, technical and vocational programs, other kinds of training, and continuing education in support of community employment opportunities. Early guidelines made specific reference to serving students who were older than traditional college age.

The legislation to establish Virginia's system of community colleges called for a community college within commuting distance of all Virginians. Guidelines also suggested that they not be located within thirty miles of existing public four-year colleges (a provision later relaxed) and that they not directly compete with established private schools in the communities.

By 1966 two community colleges had been created, one in Northern Virginia and one in Roanoke, but they enrolled fewer than 4,000 students. Including absorption of pre-existing two-year institutions, the Virginia Community College System (VCCS) had

grown to sixteen colleges and 28,000 students by 1970. By 1973, twenty-three colleges (with multi-campus systems in the large urban areas) had been established in almost exactly the configuration called for in a 1967 master plan. By 1975 the system was serving more than 50,000 FTE students (Vaughan, 1987), and by 1994, almost 131,000.

The distribution of Virginia's community colleges is closely tied to urban centers and the interstate highway system (Figure 6). Each of Virginia's eight Metropolitan Statistical Areas has a community college. Given the desire to place a college within commuting distance of all Virginia residents, it was fortuitous that the interstate highway system was under construction during the initial development stage. More than half of the campuses are directly adjacent to or very near interstates, and the others are located on other major federal or state highways. Denser concentrations of colleges represent the multiple campuses of the three colleges serving Virginia's three large urban areas: the Northern Virginia portion of the Washington D.C. metropolitan area (1,900,000 people); the metro Richmond area (930,000 people) and the Hampton Roads region (metropolitan Norfolk-Virginia Beach-Newport News, with 1,500,000 million inhabitants).

In keeping with the charge to serve their communities, each campus or branch of a multi-campus system has a different flavor. Some, such as the Virginia Beach campus of Tidewater Community College, are largely transfer institutions offering general education and academic majors to a suburban population that will later transfer to four-year colleges. The inner city campus of J. Sargeant Reynolds Community College in Richmond serves a large African American student body and others with job-oriented technical and vocational programs in addition to transfer courses. New River Community College southwest of Roanoke has an outstanding record of developing vocational programs in concert with local blue collar employers ranging from truck assemblers to instrument panel control manufacturers.

Virginia Community Colleges

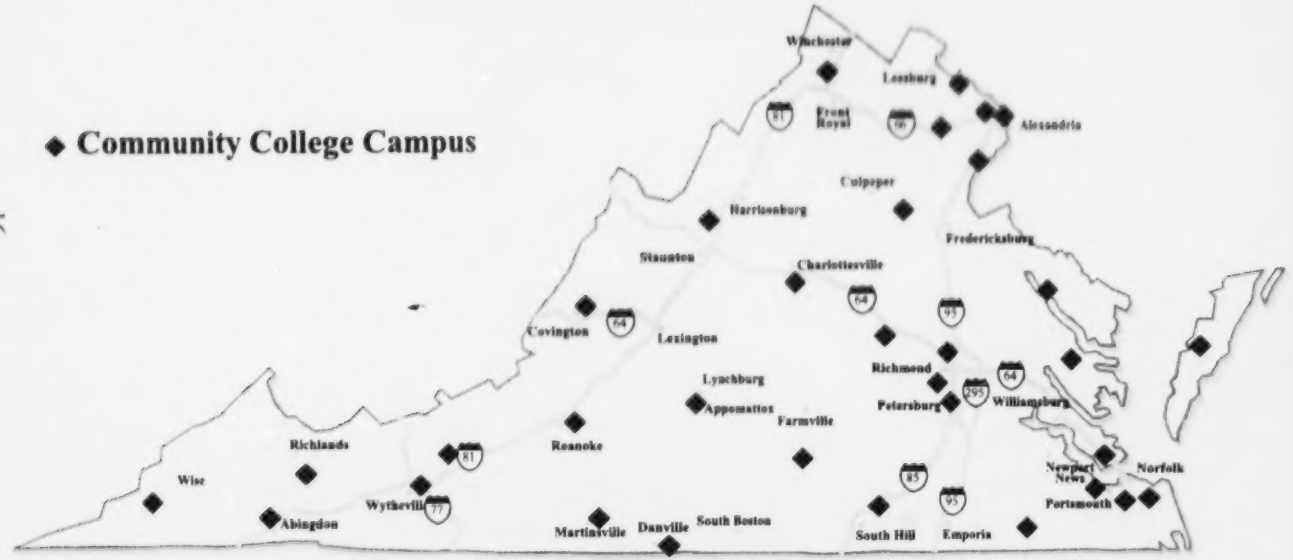


Figure 6

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Conclusion

Community colleges as institutions exemplify many prototypical American values. This in part explains their rapid spread across the American landscape. Community colleges are open-admission, anti-elitist colleges, in contrast to the competitive four-year colleges and universities. Instead of cautioning students about the academic distractions of job and family, community colleges welcome part-time students and orient their curricula, their schedules and their locations to serve these students. Community colleges also encourage access by minorities, and more minorities are now enrolled in community colleges than in four-year colleges.

The geographic distribution of community colleges reflects these principles both at the macro-level, where the more rapidly-growing states of the West and South have much higher percentages of students in two-year schools, and at the micro-level, where community colleges are located at interchanges along high-access interstate highways. From a financial perspective, community colleges are no-frill institutions; they are efficient and economical, and in the language of the market economy, they pass those saving along to their consumers -- the students. They are multi-purpose institutions, offering curricula ranging from liberal arts to vocational and technical courses. Because of these advantages, all trends indicate that community colleges will continue to grow in number and in their proportion of student enrollment. Community colleges offer so many advantages, that, from a regional perspective, it is likely that in those few states where they are relatively unimportant at present, both total and proportional enrollment will increase in the near future.

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